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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,261	10/21/2003	Arvind Mithal	01997-242002	3414
26161	7590	09/22/2004	EXAMINER	
FISH & RICHARDSON PC 225 FRANKLIN ST BOSTON, MA 02110			NAMAZI, MEHDI	
			ART UNIT	PAPER NUMBER
			2188	

DATE MAILED: 09/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

RL

<b>Office Action Summary</b>	<b>Application No.</b> 10/690,261	<b>Applicant(s)</b> MITHAL ET AL.	
	<b>Examiner</b> Mehdi Namazi	<b>Art Unit</b> 2188	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 October 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. This office action is in response to preliminary amendment filed October 21, 2003.

#### *Claims*

2. Claims 2-26 have been canceled.

#### *Double Patenting*

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claim 1 is rejected under the judicially created doctrine of double patenting over claim 1 of U. S. Patent No. 6,636,950 since the claim, if allowed, would improperly extend the "right to exclude" already granted in the patent.

A question of patentability is raised with respect to representative claim 1 of the instant application under the judicially doctrine of "obviousness-type" double patenting with respect to U.S. Patent No. 6,636,950.

More specifically, OPQR maintains that in view of the "obviousness-type" double patenting rationale enunciated in *Georgia Pacific Corp v United States Gypsum Co.*, 52 USPQ2d 1590, U.S. Court of Appeals Federal Circuit 1999, representative application claim 1 merely defines an obvious variation of the invention claimed in US Patent 6,636,950.

Initially it should be noted that the present application is a continuation application of parent patent 6,636,950 having the same inventive entity. The Assignee in both applications is Massachusetts Institute of Technology. The entire disclosures of the instant application and patent number 6,636,950 are identical.

Claim 1 of the patent is compared to claim 1 of instant application in the table below.

Instant Application	Patent
A computer system comprising:  a hierarchical memory system, including a first local storage, and a main storage; and  a first memory access unit coupled to the hierarchical memory system capable of processing a plurality of memory access instructions that includes  (a) a first instruction that specifies a first address and a first value, wherein processing the first instruction by the first	A computer system comprising:  a hierarchical memory system, including a first local storage, and a main storage; and  a first memory access unit coupled to the hierarchical memory system capable of processing a plurality of memory access instructions that includes  (a) a first instruction that specifies a first address and a first value, wherein processing the first instruction by the first

memory access unit causes the first value to be stored at a location in the first local storage that is associated with the first address, and

(b) a second instruction that specifies the first address, wherein processing of the second instruction by the first memory access unit after processing the first instruction is such that the first memory access unit complete processing of the second instruction after the first value is stored at a location in the main storage that is associated with the first address.  
**(Claim 1)**

memory access unit causes the first value to be stored at a location in the first local storage that is associated with the first address

**such that after the processing of the first instruction the first value has not necessarily been stored in the main storage,** and

(b) a second instruction that specifies the first address, wherein processing of the second instruction by the first memory access unit after processing the first instruction is such that the first memory access unit complete processing of the second instruction after the first value is stored at a location in the main storage that is associated with the first address. **(Claim 1)**

Claim 1 of the instant application is anticipated by claim 1 of that patent contain all the limitations of claim 1 of the instant application. Claim 1 of the instant application

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therefore is not patently distinct from the earlier patent claim and as such is unpatentable for obvious-type double patenting.

Under the rules of GATT/NAFTA for implementation of the 20 years term effective June 8, 1995, the term of the affronted U.S. patent ends the same date as the instant application. Therefore, patent protection rights due application from U.S. Patent No. 6,636,950 B1 cannot be timewise extended by issuance of the instant application even without a properly drafted terminal disclaimer in this case. **However in lieu of the cancellation of the claims or abandonment of the instant application, applicants must overcome this question of patentability by submission of a paper that at least addresses the "enforceability/common ownership" provision of a terminal disclaimer referred to in 37 CFR 1.321 (C) (3).**

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Liencres et al. (Liencres) (U.S. Patent No. 5,765,196).

As per claim 1, Liencres teaches a computer system [**computer system 100 (see fig. 1)**] comprising: a hierarchical memory system [**cache subsystem & main memory (element 250 figs. 2 & element 104 fig. 1)**], including a first local storage (**fig.**

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**2, element 250)**, and a main storage (**fig. 1, element 104**); and a first memory access unit coupled to the hierarchical memory system capable of processing a plurality of memory access instructions that includes (**processor 1, fig. 1**).

(a) a first instruction that specifies a first address and a first value, wherein processing the first instruction by the first memory access unit causes the first value to be stored at a location in the first local storage that is associated with the first address **[Addressing the cache by the CPU & loading a cache line (col. 1, lines 15-25); writing the updated data subsequently or concurrently to the main memory (col. 1, lines 29-30)]**, and

(b) a second instruction that specifies the first address, wherein processing of the second instruction by the first memory access unit after processing the first instruction is such that the first memory access unit complete processing of the second instruction after the first value is stored at a location in the main storage that is associated with the first address **[Subsequently reads of the same address by processing from the cache (col. 1, lines 25-26)]**.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mehdi Namazi whose telephone number is 571-272-4209. The examiner can normally be reached on Monday-Friday 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mano Padmanabhan can be reached on 571-272-4210. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mehdi Namazi  
Patent Examiner



September 18, 2004